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A NEW SNAKE OF THE GENUS *ARIZONA*¹

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It has been apparent to the writer for some time that the snakes long referred to *Arizona elegans* comprise two races sufficiently well-marked in appearance and distribution to be designated by separate names. Kennicott's type of *A. elegans*² came from the lower Rio Grande, Texas, and belongs to the race occurring from about the ninety-eighth meridian in Texas west through northeastern Mexico and New Mexico into south-eastern Arizona. For the other race I propose the name

Arizona elegans occidentalis, new subspecies

Diagnosis: Similar to *A. elegans elegans* (Kennicott), but with fewer dorsal scale rows, more numerous and narrower dorsal blotches, with the lateral spots narrow or indistinct, and with relatively shorter tail.

Type Specimen: United States National Museum No. 54372; La Jolla, California; collected by J. C. Thompson, May, 1916.

¹ Contribution from the Zoological Laboratory of the University of Michigan.

² United States National Museum No. 1722, *Mexican Boundary Survey, Reptiles*, p. 18, pl. 13.

Description of Type Specimen: Ventral plates, 214; anal plate entire; caudal plates, 51, all divided; dorsal scale rows, 27-25-23-21-19; upper labials, 8 on each side; lower labials, 13 on the left side and 12 on the right; on each side a single preocular and 2 postoculars; temporals, on each side, 2, followed by 4; posterior chin-shields about half as large as the anterior, parallel, and separated by two to three lines of small scales; rostral prominent, projecting about half way between the internasals; other head shields normal for the genus; dorsal scales all smooth, and similar in size and proportions.

Total length, 992 mm.; tail length, 136 mm.; tail, therefore, 0.137 of the total length. Sex, male.

The general color above (as preserved) is light brownish marked by about 72 narrow, ill-defined transverse blotches of darker brown. Small lateral alternating spots are faintly defined on the anterior half of the body. On the second and third, occasionally first and fourth, rows of dorsal scales are frequent small black spots, which are rather conspicuous in a general view of the specimen. The brown of the upper surfaces changes gradually at about the third or fourth row of dorsal scales to the cream color of the lower surfaces. The latter are without markings of any kind. The top of the head is nearly uniformly light brown. From the lower postocular to the last upper labial is a dark streak, and the labial suture under the middle of each eye is dark along its upper portion. The under side of the head is unmarked.

Remarks: Specimens from Texas, and from western Arizona and California, are referable on sight to their respective subspecies, but individuals from the intermediate region are generally intermediate in pattern or scalation. A larger series of specimens will undoubtedly make possible a closer definition of the characters and ranges of these races. Until then a specimen must be identified as belonging to the race it most nearly resembles in characters and locality.

The intermediates among the specimens examined are as follows: U. S. N. M. 8408 from "southeastern Arizona" has the pattern of *elegans* and the scale rows of *occidentalis*; U. S.

N. M. 8002, from Camp Grant, Arizona, has a pattern somewhat similar to *elegans*; U. S. N. M. 14298 from Chihuahua, Mexico, has the pattern of *elegans* and the dorsal scale formula of *occidentalis*; the specimen from Mesilla Valley, New Mexico, is intermediate, as well as four others of indefinite locality (A. M. N. H. 4268, 4269, and U. S. N. M. 44904, 48696).

The two subspecies may be distinguished as follows:

Scale rows usually 29 or 31; dorsal blotches on body about 55 (40 to 57) large and squarish, covering about 12 or 13 lateral rows of scales and 2 to 3 longitudinal rows, and separated by 1 to $1\frac{1}{2}$ scales; lateral spots conspicuous and roundish; tail 0.138 to 0.159 of total length.

A. elegans elegans (Kennicott).

(From about the 98th meridian in Texas, west through northeastern Mexico and New Mexico into southeastern Arizona.

Scale rows 27, only occasionally 29; dorsal blotches on body about 60 (54 to 77), narrow, covering about 7 to 10 lateral rows and $1\frac{1}{2}$ to 2 longitudinal rows of scales, and separated by about 2 scale lengths; lateral spots narrow or indistinct; tail 0.100 to 0.148 of total length.

A. elegans occidentalis, new subspecies.

(Southeastern Arizona west through southern California and northern Lower California.)

Scale features may be compared in the accompanying lists of specimens.

LIST OF SPECIMENS OF *Arizona elegans elegans*³

Museum	No.	Locality	Sex	Scale Rows	Ventrals	Caudals	Supralabials	Intralabials	Oculars	Temporals	Number of spots on body	Remarks	Total length in millimeters	Tail length in millimeters	Tail divided by
A. M. N. H.	4268	Neutral Strip, Oklahoma	Female	29-31-21	213	53	8	13	1, 2	2 + 4	64	Pattern like occidentalis	576	90	.156
"	4269	Neutral Strip, Oklahoma	Male	27-29-19	199	55	8	12	1, 2	2 + 4	65	Pattern like occidentalis	384	61	.159
"	7469	San Antonio, Texas	Female	28-31-19	219	49	8	13	1, 2	2 + 4	45		979	136	.139
"	9687	San Antonio, Texas	Male	27-30-19	211	52	8	14	1, 2	2 + 4 & 2 + 3	51		964	144	.149
U. S. N. M.	1706	Between Pecos & Rio Grande, Texas	Male	29-19	199	55	8	15 & 14	1, 2	2 + 4	56		313	48	.153
"	1722	Lower Rio Grande	Male	29-31-19	208	57	8	14 & 15	1, 2	2 + 4 & 3 + 4	55	Type	946	145	.153
"	4266	Between Arkansas and Cimarron River, Okla.	Female	29-31-21	210		8	12 & 13	2, 2	2 + 4	57				
"	22371	Mesilla Valley, New Mex.	Female	25-27-19	205	46	8	13	1, 2	2 + 4	60		254	35	.138
"	38351	San Antonio, Texas	Female	29-31-19	226	53	8	12	1, 2	2 + 4	50		1090	163	.149
"	44904	Capitan Mountains (?), New Mex.	(?) Male	27-25-27-19	187	53	8	12	1, 2	1 + 3 & 2 + 3	52		292	45	.154
"	48696	North America	Male	27-29-19	205	53	8	13	1, 2	2 + 4	48		1051	149	.142
"	56597	Bexar County, Texas	Male	27-31-19	219	54	8	14 & 13	2, 2	2 + 3 & 2 + 4	52		1140	158	.138

³ This list and the next contains all the specimens of the genus *Arizona* at present in the collections of the American (A. M. N. H.) and United States National (U. S. N. M.) museums. In the table, where two numbers occur in the same space the first number refers to the left side of the head, and the second to the right side.

LIST OF SPECIMENS OF *Arizona elegans occidentalis*

Museum No.	Locality	Sex	Scale rows	Ventrals	Caudals	Supralabials	Infralabials	Oculars	Temporals	Number of spots on body	Remarks	Total length in millimeters	Tail length in millimeters	Tail divided by total length
A. M. N. H.	Arizona	Female	27-19	222	52	9	14 & 13	1, 2, 2	+	4	70	759	112	.148
"	Tucson, Arizona	Female									Pattern typical, Specimen in bad condition	270	34	.127
"	Phoenix, Arizona	Female	27-19	218	41	9	14 & 13	1, 2, 2	+	3 & 2	+	4	57	
"	Phoenix, Arizona	Male	27-19	210	50	8 & 9	— & 13	1, 2, 2	+	— & 2	+	4	54	
"	San Bernardino, California	Male	27-19	212	52	8	13	1, 2, 2	+	3				
U. S. N. M.	Camp Grant, Arizona	Male	27-19	211	52	8	14 & 13	1, 2, 3	+	6 & 2	+	3	58	
"	Southeastern Arizona	Female	25-27-19	204	49	8	13	1, 2, 2	+	4	60	299	40	.134
"	San Diego, California	Female	27-19	224	40	8	13	1, 2, 2	+	3	65	272	38	.139
"	Mojave Desert, California	Female	27-19	215	44	8	13	1, 2, 2	+	4 & 2	+	3	60	
"	Chihuahua, Mexico	Male	25-27-19	193	53	8	12	1, 2, 2	+	3	51	285	30	.105
"	Pacific Beach, San Diego Co., Calif.	Male	27-17	211	47	8	13	1, 2, 2	+	3 & 2	+	4	63	
"	Alhambra, California	Female	27-19	216	43	8	13	1, 2, 2	+	5 & 2	+	3	59	
"	Yuma, Arizona	Female	29-27-29-19	218	54	8 & 9	13	1, 2, 3	+	5	77	598	94	.157
"	Mesa south of Fort Mojave, Arizona	Male	27-17	214	47	8	14 & 13	1, 2, 2	+	3 & 3	+	4	65	
"	San Tomas, Lower California	Male	27-18	218	50	8	12 & 13	1, 2, 2	+	3 & 2	+	4	60	
"	San Quentin, Lower California	Female	27-19	236	37	7	12 & 13	2, 2, 2	+	3 & 2	+	2	54	
"	Phoenix, Arizona	Male	27-18	206	47	8	13 & 14	1, 2, 2	+	5	66	294	40	.136
"	Presno, California	Male	27-29-19	208	45	8	14	1, 2, 2	+	3	56	336	41	.122
"	Tia Juana, San Diego Co., Calif.	Male	27-17	209	48	8	13	1, 2, 2	+	5 & 2	+	4	60	
"	La Jolla, California	Female	27-18	231	46	8	14 & 15	1, 2, 2	+	3	68	170	17	.100
"	La Jolla, California	Male	27-19	214	51	8	13 & 12	1, 2, 2	+	4	72	834	107	.128
											Skin of adult	598	79	.132
												644	86	.134
												1132	141	.125
											Type	992	136	.137

